



Rebuild Iowa Task Force Flood Plain Management and Hazard Mitigation Meeting Summary

**August 6, 2008 — 9:30 am to 4:00 pm
West Des Moines Learning Resource Center
3550 George Mills Civic Parkway, West Des Moines, IA 50265**

Task Force Members Present

Bill Bywater, Chair, Economy Advertising/TruArt Color Graphics, Iowa City
Pat Boddy, Polk County Conservation Board and Iowa Environmental Council, Granger
Lynn Brant, University of Northern Iowa, Cedar Falls
Jeb Brewer, City of Des Moines, Des Moines
Stephen DeVries, Iowa County Engineers Association Service Bureau, Des Moines
Marianne Doonan, Bi-State Regional Commission, Rock Island, IL
Gene Fraise, Iowa General Assembly, Fort Madison
Jim Hahn, Iowa General Assembly, Muscatine
Dale Hedgecoth, Citizen, Cedar Rapids
Wayne Klostermann, River Valley Nursery and Landscaping, Inc., Dubuque
Bob McCulley, TriOak Foods, Oakville
Dawn Pettengill, Iowa General Assembly, Mount Auburn
Amanda Reid, Great River Christian School, Burlington
Larry Roehl, Louisa County Engineer, Wapello
Thomas Saxen, Retired, Financial Services, Cedar Rapids
Roger Schletzbaum, Marion County Engineer, Knoxville
Erek Sittig, Nidey Peterson Erdahl and Tindal, PLC, Iowa City
Art Staed, Iowa General Assembly, Cedar Rapids
Vicki Stoller, Two Rivers Levee and Drainage Association, Mediapolis
Gary Taylor, Community and Regional Planning, Iowa State University, Ames
Deb Turnball, Nashua-Plainfield Schools, Waverly
Dan Wall, Howard R Green Co., Cedar Rapids

Resource Group Members Present

David Bear, David Bear, Inc. Des Moines
Louis Licht, Ecolotree Inc. North Liberty
Todd McNall, OPN Architects, Cedar Rapids
Joe Myhre, North Iowa Area COG, Mason City
Brett Papendick, Wenzel and Harms, PC, Cedar Rapids
Timothy Schemmel, State Public Defender, Muscatine
James Sines, Ackley, Kopecky and Kingery, Cedar Rapids
Jeff Sherman, Environmental Health, Floyd County, Charles City

Presenters

Marty Adkins, United States Department of Agriculture (USDA) Natural Resources Conservation Services (NRCS)
Chris Ensminger, Iowa Department of Natural Resources (IDNR), Des Moines
Jamie Gyolai, US Army Corp of Engineers (USAC)

Roger Less, USAC, Des Moines
Lori McDaniel, IDNR, Des Moines
Tom Oswald, Homeland Security and Emergency Management Division (HSEMD)
Jon Paoli, HSEMD
Wayne Petersen, Iowa Department of Agriculture and Land Stewardship (IDALS)
John Wageman, HSEMD

Observers

Mary Brown, House Democrat Staff, Des Moines
Susan Dixon, RIO, Urbandale
Steve Edwards, Marion County Conservation Board, Knoxville
Carolann Jensen, Senate Republican Staff, Des Moines
Lew Olson, House Republican Caucus Staff, Des Moines
Laura Riordan, Rebuild Iowa Office, Des Moines
Jack Riessen, DNR, Des Moines
Kerry Wright, Senate Democrat Staff, Des Moines

Staff

Barb Lynch, DNR
Brooke Findley, State Public Policy Group (SPPG)
Taylor Johnson, SPPG
Paritosh Kasotia, SPPG
Arlinda McKeen, SPPG

Welcome and Introductions and Charge to the Task Force

Chairman Bill Bywater introduced himself and welcomed everyone. He informed the group that he is the part of the Commission that was introduced by Lt. Governor, Patty Judge a couple of weeks ago as part of the Rebuild Iowa Office (RIO). He said that the Lt. Governor invited 15 people to participate, and all 15 accepted the challenge and agreed to be the part of the Commission. The Executive Order created a Commission of 15 members with 9 Task Forces. Major General Ron Dardis serves as the Chair of the Commission. Barb Lynch of the IDNR is assigned to serve as the staff for the Flood Plain Management and Hazard Mitigation Task Force at RIO. He talked about other Task Forces such as Housing, Education, Agriculture and Environment, among others. He emphasized the importance of Flood Plain and Hazard Mitigation Task Force because of the importance of mitigation in reducing disaster damages. He also acknowledged the presence of four legislators. He requested Task Force members and Resource Group members to introduce themselves.

Each member introduced themselves, and Bywater thanked everyone for taking the time off their schedule to attend the meeting. He mentioned that the members bring in strong expertise in multiple related areas. He informed the group about the Commission and the three meetings that took place in the cities of Des Moines, Cedar Rapids, and Wapello. In Cedar Rapids and Wapello, the Commission also took a tour of the affected areas. He said that the outcome of the meeting will be put together in a report to the Rebuild Iowa Advisory Commission (RIAC). The time frame for putting together the reports is 45 days. The Governor's Office and the legislators will then make some determinations and implement programs to keep the process going. He talked about the urgency of the Task Forces and getting practical answers to the people affected by the floods. Bywater introduced the facilitator for the meeting, Arlinda McKeen. He also mentioned that there will not be a break during the meeting but people should feel free to take breaks as needed.

Overview of the Day

McKeen began with informing the group about SPPG and its role in RIO. She talked about SPPG's role in facilitating the meetings and putting together final reports for each Task Force. Arlinda acknowledged two other SPPG staff members, Taylor Johnson and Paritosh Kasotia. She asked the group to ask Johnson for any information or assistance they needed. She also informed them that Kasotia will be taking notes for the meeting. McKeen thanked the attendees for making the trip to Des Moines. She said that she will be looking at the Resource Group members to provide additional information, ideas, and experiences and fill in the gaps when needed.

McKeen said that in the morning, a number of speakers will inform the group on different programs and efforts. After that, the group will be discussing the issues, gaps, and recommendations in the afternoon. She also informed the group that there have been communities that have suffered severe impacts in the state that will last for a long time. Some of those impacts are very isolated. Of the 99 counties, 83 counties have been declared disaster areas. Sixteen counties have not been declared disaster areas, but that does not mean that they will not be having any indirect impact. McKeen said that the group needs to think about hazard mitigation and think long-term and statewide.

McKeen passed around the Task Force roster to have the group correct their contact information.

Damage Assessment Status

Chairman Bywater introduced the presenters and format for handling questions.

*Resources Permitting Authority & Jurisdiction and Maps-Floods Designed 100 & 500 Year Flood Plain – Lori McDaniel, Supervisor, Flood Plain Management and Dam Safety, IDNR
(see handout: Iowa's Flood Plain Management Program)*

McDaniel passed out her presentation handout. She talked about her role in regulating flood plains in Iowa. She mentioned that the flood plain management began in Iowa after the floods of 1947. In 1949, the Iowa Legislature created the Iowa Natural Resources Council (INRC). INRC received the authority to manage flood plain development. Currently, the authority belongs to the IDNR. McDaniel talked about the Iowa Code 455B.264 which gives DNR the authority to construct and maintain the flood plains of the state.

McDaniel talked about the different types of projects such as bridges, culverts, channel modifications, dams, and dikes. She explained that each type of project has specific approval criteria. She said that they are also required to look at environmental impacts of the project. For example, in a project, if a channel change is required, DNR will talk to the Fish and Wildlife staff to check with them that there are no environmental impacts. McDaniel explained that the current flood plain program is made of several components. She also talked about the community's role in issuing or denying building permits and the state's role to provide technical assistance regarding flood plain issues. She said that if someone is asking for variance to the flood plain, DNR gets involved in addition to the local communities.

She mentioned that in Iowa, 498 communities have detailed flood maps and 136 communities have delegated authorities for flood plains. The other communities don't have the resources and/or the technical staff. She said that DNR coordinates with FEMA for the National Flood Insurance Program with a detailed map of the community and meets FEMA regulations as well as state regulations, since both regulations are different. McDaniel mentioned that if people want to participate in flood insurance

program, DNR makes sure that they have met FEMA guidelines. Communities need to meet all regulations to make sure that they get the flood plain insurance at the discounted rate.

McDaniel also talked about the Dam Safety Program. There are 3,325 dams in the state for which DNR does the project review, provides permits and inspect them every 3-5 years. DNR also provides on-call disaster response. McDaniel mentioned that the flood plain program has four full-time staff that reviews and gives permits. She talked about receiving 1,500 requests for permit applications per year which makes it 30 projects per month for the staff. This has created a backlog of projects. Due to the floods, the projects that are already in the system will be backlogged even further. Of the four staff members, one staff provides technical assistance for 136 local communities and one person for 3,325 dams in Iowa. She related that there is a lot of pressure on the staff with such a big load and limited staff. McDaniel informed the group about the DNR website which contains all the information on regulations and requirements for different types of projects. The website also gives a checklist to apply for permits which allows people to know what information they need to submit.

One Task Force member asked if they have heard anything about regulations regarding flood plain management. McDaniel talked about the need to have higher standards and that they have had brief discussions on areas of regulations that can be changed. She said that the regulations are pretty good right now. Another Task Force member asked how many flood plain permits are approved and how many of them are sent back. McDaniel said that 70 projects were sent back since they did not have all the information.

A Task Force member asked how DNR jurisdiction coordinates with the US Army Corps of Engineers (USAC). Roger Less of USAC answered that levee systems are designed and are required to follow the same community standards. Projects are submitted to DNR to ensure that same standards are met.

One Resource Group member asked if DNR has regulations regarding what people can or cannot do to protect bridges. McDaniel answered that the state has good regulations regarding the bridges. In 1993 flooding, the state did not have any damages to bridges built to DNR specifications.

A Resource Group member further asked if DNR is relying on flood studies that are old. McDaniel mentioned that DNR is dealing with changed dynamic systems and is investing in technology such as LiDAR which provides extremely accurate data to update its maps and flood studies. DNR needs to take the next steps of creating flood plain maps but the Department lacks the funding for it. The Department will need \$150,000 per county. She emphasized that the LiDAR data provides such a wide range of usage and the data is usable by many agencies. A Task Force member asked if funding available, how long it will take to develop the LiDAR system. McDaniel said that it will take about ten years to complete the process for each of the 99 counties. If funding is doubled, DNR can create them faster and start working with FEMA faster.

Less mentioned that there are standards that DNR needs to follow and they have to work through the lengthy process of having preliminary review, public review and comment period. That process alone takes two years. But, a number of measures can be taken that will collapse the public review period. The time consuming part is to find enough contractors to do them. Task Force member also asked if DNR maps are separate from FEMA maps. McDaniel said that there are separate maps. Another Task Force member asked if DNR maps are more current than FEMA maps and if FEMA maps have not been updated, will DNR maps trump the FEMA maps. McDaniel said that they will but it does not make sense to have two sets of maps.

*GIS, LiDAR, & Other Tools for Planning and Prevention – Chris Ensminger, IDNR
(see handouts, Flood Plain Mapping in Iowa, Our Common Ground, and LiDAR Project Status Map)*

Ensminger talked about Light Detection and Ranging Technology (LiDAR). He passed out a handout that gave information on what is LiDAR, a technology that is similar to Sonic Detection and Ranging (SONAR). LiDAR uses an aircraft and the laser beam which gives 150,000 pulses of light per second. LiDAR gives very dense data set with +/- 5 feet of accuracy. Ensminger mentioned that DNR did a pilot budget which gave a cost estimate of 50 cents per acre or \$18 million for the entire state of Iowa. Since every order under this budget was custom order, the cost was so high. He mentioned that US Geological Survey (USGS) negotiated indefinite quantity with a number of vendors for a LiDAR study. Because of this switch, the cost estimate was reduced to 11 cents an acre or a total of 4.3 million dollars. Other costs of the LiDAR project include costs for detailed resolution photography (\$1.5 million), infrastructure distribution costs (\$200,000) and \$400,000 for research, among other costs. The Department has not received the funding yet. Ensminger mentioned that the ideal time to collect data is in the spring when there are no leaves on the trees and the snow has melted. It is also preferred that rivers are at the normal pool level. He said that this project will be a huge step forward for Iowa and for many departments such as Agriculture, Engineering, Transportation, and Natural Resources. It will also save customers a lot of money as well.

One Task Force member mentioned that there are many counties that have their own GIS systems. Is this a duplication effort or can DNR work with the counties and share data? Ensminger said that in few cases, there is duplication. People are creating their own custom data. LiDAR will be able to provide consistency. He said that LiDAR maps done earlier do not have the same level of accuracy. Another Task Force member asked if it is generally accepted that LiDAR is the best technology to collect accurate data. Ensminger said that old school will argue that it is not the best, but it is the only feasible way to do large area mapping.

One Task Force member asked if FEMA has certain standards, does LiDAR meet or exceed those standards. Ensminger said that DNR is trying to get FEMA as one of their partners. Since that does not seem possible, they are trying to get a letter of endorsement that basically states that the DNR meets the requirements set by FEMA. In response to DNR's communication with FEMA, FEMA basically told DNR that they want the best data that is available. A Resource Group member asked what the DNR can do to offset the potential of built-in inaccuracy. Ensminger mentioned that LiDAR provides a highly accurate GPS system. Most of the time, the data has +/- 4 feet of accuracy. However, the biggest problem is the vegetation. Less mentioned that USAC uses LiDAR and they love it since it gives very accurate results.

*GIS, LiDAR, & Other Tools for Planning and Prevention –Jon Paoli, GIS Coordinator, Iowa Homeland Security and Emergency Management
(see handout: Iowa Geospatial Infrastructure)*

Jon Paoli talked about receiving two federal grants for case studies to get some way to collaborate on information at the state, county, and local level. The grant is utilized towards a project called Iowa Geospatial Infrastructure. He said that a lot of agencies are using GIS that DNR is not aware of. He said that the goal of the grant is to compile information on what others are doing and how can that information be best utilized. Another aspect is to look at the business cases to see why there is not a higher level of information sharing. Increased information sharing will help many sectors such as economic development, human services, among many others. He said that the possibilities are endless. Paoli said that it is easier to get information for three counties on damage assessment but it is hard to collect information from 60 counties once the state was flooded. He said that the project plans to have a service bureau that will take the LiDAR all across the state. The basic idea of the project is to have GIS technology available statewide for regular planning of multiple agencies. Paoli mentioned that LiDAR costs a lot but also provides great savings.

One Task Force member shared the same view as Paoli by saying that the GIS system makes data extraction so easy. Paoli said that we can all do a better job of knowing what people want. Paoli also discussed the framework of GIS data layers which include, benchmarks, Aerial Ortho-photography, city and county boundaries, parcels, transportation, elevation, water features and address points. Paoli mentioned that parcel is a huge deal since some counties have it and others don't. Some things also take more time to maintain but the state needs to develop a system that is cost effective. Another Task Force member asked Paoli if there needs to be standards. Paoli said that they have examined what other states have done and they are also working with a group of professionals to set standards. He said that once the core set of data is available, they will have more leverage to make people cooperate. One Resource Group member asked if the Iowa Geospatial Infrastructure will allow communities to alter or modify data. Paoli said that any changes will require technical expertise and will require the assistance of engineers to approve changes. DNR can provide the data but will not have the expertise to make that call. Bywater said that part of that is the expertise that the infrastructure department will not have. Paoli said that data availability can allow more accurate predictions.

Levee Discussion by US Army Corps – Roger Less, United States Army Corps of Engineers

Roger Less started off by giving a brief background on the USAC that they are primarily an armed force but they also have a civil function to serve as a water resource construction agency with water resource as their main focus. Less said that the USAC is divided geographically based on the watershed boundaries. There are eight Corps divisions of USAC in the continental US. The Rock Island district covers most of the state of Iowa. Parts such as western Iowa, southwest Iowa, and northern Iowa are covered by the Omaha, Kansas City and St. Paul districts, respectively. Because of this, Iowa works with four districts and two division officers. But, Rock Island covers the bulk of the state. He said that the role of Corps is to provide emergency response. He mentioned that USAC also provides number of capabilities to state and local entities, such as it gave out 13 million sandbags. USAC also provides technical assistance by deciphering water level information. One can also find real time water data from their website. He mentioned that Rock Island has three Corps reservoirs in Iowa with the main purpose being to control floods. The three reservoirs include Saylorville, Coralville, and Red Rock. He said that not all levees are under the same jurisdiction. Levees also protect cropland and homes. He mentioned that private levees do not have any Corps involvement. The local government has the jurisdiction on the local levees. They plan, design and build levees but they have to meet Iowa's permitting requirements. He said that the state does not have a comprehensive program. USAC works with the local communities and turns to local cities for ownership, operation, and maintenance. Less mentioned that USAC does an annual inspection of the levees and there are a few levees that the Corps built, own and maintain. But, the Corps does not get involved with the non-federal levee system. If the levees meet minimum eligibility standards, the Corps has some continuing responsibility. He mentioned that for non-federal levees, the federal government will do 80 percent of repair with a 20 percent local cost share. If they are federal levees, the Corps pays 100 percent repair costs but expect the local government to provide the materials and the right of way. He said that the US Corps do a quick Cost-Benefit analysis (CBA) to determine whether levee repairs are justified and needed. He said that Water Resources Development Act gave the US Corps Engineers special authorization to go in and repair levees. He said that entering into flood study with the City of Cedar Rapids will exceed \$7 million federal investment.

One Resource Group member asked that one of the reservoirs has a life expectancy of 40 years and they are concerned about siltation. Should the Army Corps repair it? Less said that when a project is built, US Corps need to find a justification to do the project based on the CB ratio. Because of the CBA, the Corps needs to give the project a design life so that they can justify the project. But, projects are built to last longer than their given life. The life years is given only to extract the benefits from the study. He said that engineering wise, the levees are built to last forever with proper care and maintenance.

But, external factors such as sedimentation can damage the systems. Another Task Force member asked if there is a life expectancy for conservation pools in the reservoir. Less said yes, and they have to figure out whether to raise the pool to reduce the flood. A Task Force member asked a follow-up question on whether reservoirs are used as flood storage project. Less said that the primary purpose of the reservoirs is flood control but they also provide multi-purpose usage such as water supply, fish and wildlife, and recreational activities. He said that of the total flood control, conservation pool represents 10-15 percent of flood storage. One Task Force member asked how much Coralville lost in flood control storage. Less did not have a specific answer. He said that some of the loss was also due to sedimentation. He said that not all reservoirs have done a pool raise. Saylorville reservoir did a three feet raise and due to that, it lost three feet of flood storage. A Task Force mentioned that pool elevations are like putting a band aid without really solving the problem. Less said that the state needs to review how it manages 85 percent of its storage. Another Task Force member asked if dredging is an option. Less said that dredging is an alternative on the conservation side but not on the flood side. He also said that dredging is very expensive and not very reliable. A Task Force member said that more thought needs to be given to watersheds. Less said that Corps looks at isolated projects and NRCS looks at watershed issues.

One Task Force member asked is there is a plan for the damaged levees in Oakville. Less mentioned that they have authorization to do federal improvements in existing levees. In 1960, Oakville levee was raised to 100 year design levee. Studies have not been done if it is still a 100 year design levee. There have been changes in hydrology. Studies need to be done. He said that the Corps has a set of contract documents to do interim repair which will begin soon but they won't be providing permanent repairs. Another Task Force member asked if water quality remains the same when you do the repairs. Less said that in levee recovery, water quality is not an important factor. Recovery projects are submitted to the Interagency Levee Task Force, and they recommend viable non-structural changes.

Another Task Force member said that he has not heard anything about having a comprehensive plan for river systems. He asked what the overall comprehensive plan is. Less said that he cannot speak for FEMA or NRCS but said that there is no comprehensive plan for Iowa. All projects and planning are fragmented. He said that to have a comprehensive plan, there will be a need for a different thinking in the Congress. He said that the Corps does not tell communities what needs to be done for flood control unless they are specifically asked to provide input. He said that projects need a local sponsor. He said that all Corps projects have sponsors. If the state of Iowa wants a comprehensive approach, it will require local sponsors. He mentioned a number of comprehensive plans such as Mississippi River Comprehensive Plan, Illinois River Comprehensive Plan, among others. He said that Iowa does not have something similar. A Task Force member further asked how one begins the process to develop a comprehensive plan. Less said that the biggest need is to find a sponsor. A Resource Group member asked what the benchmarks for the levee elevations are. Less said that levee elevation is based on a level of protection and slope of the rivers. Some levees provide ten years, 50 years, or 100 years of protection. Higher levels of protection varies from location to location. He said that it is based upon the design throughout the economic justification analysis. That is how the top of the levee elevation is set up. Levee systems need to have upstream tie off and also downstream tie off.

*Levee Management Update – Tom Oswald, Lead Public Assistance Coordinator, HSEMD
(see handout – Flood Controls Work)*

Oswald talked about the Interagency Task Force initiative. He said that this is a similar model to the 1993 model which resulted in a lot of mitigation efforts. Oswald mentioned that NRCS is a major player along with Corps and FEMA. He said that NRCS has legal authority up to 400 feet of drainage. He said that they use a lot of Emergency Watershed Program money. They work with emergency categories. He said that without a sponsor, it is difficult to provide assistance. The Interagency Task Force is a multistate group. He said that the main purpose is to ensure that they coordinate efforts and there are

opportunities for mitigation. He said that NRCS has money for floodplain easement. Their program is strictly volunteer.

A Task Force member asked a question on the certification of the levee system for the flood insurance program. The speakers said that the certification process is costly and communities have to pay to get the surveys with only two years of timeframe. Taxpayers pay for the levee and watershed districts. One has 60 days to get the preliminary accreditation.

*Water Stewardship Center Partnership – Jamie Gyolai, USAC
(see handouts: Education on Water Management is Needed, and Water-The Path Forward)*

Gyolai talked about the Water Stewardship Center at Lake Red Rock in Marion County. He said that the Center is designed to answer public questions and serve as a one-stop resource center for the state. He said that their main focus is to educate people so that they can serve as the personal stewards of the land. He said that the Center is a partnership between the Corps, Marion County, Iowa DNR, and Central College with a goal to educate Iowans on water through nature and interactive exhibits. He said that the Center sends out newsletters to the public. He said that there are a lot of good services in Iowa that work individually and the goal is to bring them together.

*Hazard Mitigation – John Wageman, State Hazard Mitigation Officer, HSEMD
(see handout – FEMA's Mitigation Grant Programs)*

John Wageman began by giving a definition of hazard mitigation as defined as an action or measure taken to reduce future damage from occurring and to avoid loss of life and suffering. He discussed five different hazard mitigation programs with four of them being pre-disaster programs. The programs are: Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA), Repetitive Flood Claims (RFC), Severe Repetitive Loss (SRL), and Hazard Mitigation Grant Program (HMGP). He mentioned that the largest program is Hazard Mitigation Grant Program. The grant funds are usually between \$100 million to \$150 million. The program is nationally accredited. The minimum amount that is disbursed is \$500,000. He said that Iowa has had five presidential disasters in the last 16 months. The amount of money received is close to \$16 million dollars. He said that if a state lacks an approved hazard mitigation plan, the state gets \$0 for public assistance. He said that some of the requirements include that local communities have FEMA-approved hazard mitigation plans. He discussed some of the multipurpose flood shelters such as the one in Iowa State Fairgrounds as examples of severe weather mitigation efforts.

One Task Force member asked if the base level elevation has changed. Wageman said that things in Iowa need to be built at the 100 year level or above. In Iowa, it is also mandated that base level is one foot above the 100-year flood level. Another Task Force member said that it is pointless for people to submit requests for the hazard mitigation support programs if they are in the flood zone. She asked if there anything that people can do who have become homeless. Wageman said that the focus should be to prevent future damage, but the state needs to look at property acquisition. He said that they need to look at whether any structure exists in the flood plain. He said that communities are undergoing map revisions. As an option, people can apply for Community Development Block Grants and/or NRCS programs. A Task Force member asked Wageman to clarify between FEMA money and hazard mitigation money. Wageman clarified that the program is not a FEMA buyout program but a local jurisdiction program. Communities have to look at long range plan for a neighborhood. Another Task Force member asked what factors are included/excluded in the Benefit Cost Analysis (BCA). Wageman said that when you spend a dollar, you need to show that you will save a dollar. That is the basis of BCA. He mentioned that Iowa does not have state appropriations for hazard mitigation. A Task Force member asked if the funds are restricted to critical public functions or whether functions such as cultural arts and public theatre fit the requirements. Wageman said that critical functions is a loose definition but

services such as hospitals or water treatment are more along the lines of critical public functions. Wageman mentioned that the programs are voluntary. A Task Force member had concerns about moving people from flood plains since local communities cannot use the power of eminent domain to force people. A Resource Group member asked if the city can sell the property to someone else. Wageman said that the cities want to use the space for a particular purpose such as building public spaces, nature reserves, etc. A Task Force member asked what level of detail do you find in local hazard mitigation or buy-outs; do you see communities integrating hazard mitigation plans into their plans? Wageman said that quite often communities do integrate hazard mitigation into their plans. He said that part of the planning process is identifying hazards and then developing projects to mitigate.

Emergency Wetlands Program (EWP) – Marty Adkins, Assistant State Conservationist for Water Resources, NRCS

Marty Adkins talked about the Emergency Wetlands Program (EWP). EWP is a program of the federal government that is funded in response to disaster events. If there is a big hurricane in Florida or elsewhere, Congress has the authority to authorize funds. He said that \$393 million dollars nationwide were authorized in May. Adkins noted that that projects funded through EWP require a public sponsor and also requires 25 percent non-federal match. The kinds of activities include stream bank stabilization, slope failures, etc. He said that if a levee is broken and if there is a farm house on the other side, it makes most sense from the economic and practical standpoint to not fix the levee and do the buyout.

Adkins also talked about the Floodplain Easement use in two situations. One is used for building buyouts to NRCS that works to restore native vegetations and work on the topography to enhance wildlife. In return, compensation is authorized under the program. He said that the values are based on fair market appraisal or market survey analysis or a geographic rate cap. He talked about NRCS' participation in the Interagency Levee Work Group. He said that they will be looking at any request for assistance and also requests for assistance for FEMA and the Corps. He said that it is important to consider all programs and planning options. He said that NRCS encourages everyone to think about how other entities can be actively engaged in planning for the future, for example, Department of Transportation (DOT) and the federal highway system. He said that DOT manages water the most, whether it is in bridges or elsewhere. He said the same applies for economic development programs. All agencies have an impact on water resources; therefore all agencies need to be a part of the planning process.

A Task Force member asked if there are lands in Iowa that are in the backlog for acquisitions. Adkins said that they are in the process of receiving funding right now and if they receive the funding, they will be able to take care of them. He said that there are 6,000 acres of applications coming in for floodplain easement.

*Urban Storm Water – Wayne Petersen, Urban Conservationist, IDALS
(see handout - The Water Cycle)*

Petersen summarized the lessons learned from the Agriculture and Environment Task Force meeting. He said that it is important to consider the hydrologic footprint, think about ways to infiltrate and store water, and think about improving soil quality. Petersen went over the water cycle. He discussed the differences in the historic and modern hydrology. He said that modern landscape designs do not infiltrate water. Whatever is on the land moves to the water bodies which raises the issue of water quality. He said that utilizing compost/organic content is the key to restoring native landscape. He gave the example of Okoboji where people are committed to perfecting water quality and are using bio retention cells. He discussed infiltration-based stormwater management practices, which include better

design site, soil quality restoration, native landscaping, bioswales and permeable transportation surfaces, and bio-retention.

One Resource Group member asked that to implement these practices, it will require a development process, and is that going to increase the cost of developing these projects? Petersen said that it can be a sum zero game if you plan it well and reduce costs, but most of the time it does increase cost. He said that it can be a tough call unless one has grants to offset the costs. If a developer goes to conservation subdivision, he/she can save money. A Task Force member mentioned that you want the social system to support this. He said that one needs to consider the true costs vs. increased costs. A Task Force member mentioned that some developers will do nothing else but eco-design and that saves money. Another Task Force member asked if porous substances can only be used on the curbs. Petersen said that those can be used on the whole street. A subdivision in Moline did the entire street with that material. Another Task Force member mentioned that these strategies work well for flash flooding control but what about major floods such as of 2008. He said that he does not want people to think that these strategies will control big floods as well. Petersen said that that is why you need hydrologists to provide technical guidance.

After the lunch break, Bywater summarized the morning presentations and said that major points included mapping, comprehensive plan of the river system, and also the federal funding. He turned to McKeen and Findley to facilitate the discussion.

Issue Identification

McKeen asked the group to think of the issues of importance to floodplain management and hazard mitigation. The group came up with the following issues.

The group emphasized the need for better communication. The group said that agencies and other departments need to do a better job of communicating risks with the public and with each other.

The group talked about the need to have a public education/awareness program. The public needs to be educated on the concept of 100 year or 500 year flood plain. There is a need for other channels to provide educational opportunities, besides the media, about the risks. City planning and local government needs to be educated on risks as well. One Task Force member mentioned that such terms may not be as useful to the general public but they should have an idea of what it means. Another Task Force member emphasized that there is a need to educate the public on flood insurance.

One Task Force member mentioned that there is a need for risk area mitigation and there ought to be flood relief. The state of Iowa needs to determine and declare very soon the programs and imminent areas such as those requiring buy-outs. He said that we need to make those determinations so that people can move one. People need the decisions now.

The group agreed that the state should require public input for flood plain analysis. Most of the projects are project oriented or protection oriented and are designed by those working for the agencies and departments. There is a clear need for public input. There needs to be some way to tell people where the accepted flood level is. People on the flood plain need to be required to do a maximum flood plain analysis. A Task Force member mentioned that for this, people need to be educated. Another Task Force member mentioned that while flood protection programs are good for reducing flood impacts, they do not eliminate risks associated with natural disasters, but rather change it. Therefore, other mitigation efforts need to be developed.

The group agreed that there is a need to have more program flexibility. Flexibility is needed to allow different programs to work in conjunction with other programs. One Task Force member mentioned that the federal and state governments should push for agencies to relax requirements so that people can access multiple programs at the same time without any restrictions.

One Task Force member mentioned the need to put all the pieces together. All programs need to fit together and the public should be educated on how they fit together. She mentioned that since there are so many programs out there, the general public is confused as to how these programs work and how they apply to individuals. Therefore, there is a need for agencies to not only explain their programs but also explain how they link or fit with other programs.

The group said that more creativity is needed in solving problems. One should be required to promote sustainability. One Task Force member said that agricultural activities are problematic such, as plowing which reduces infiltration. Therefore, there is a need to revisit practices that contribute to the catastrophe level. The group discussed that emphasis should be placed on hazard mitigation and best practices to control impact of the floods.

The group said that current construction practices create severe impact on the landscape. New buildings and other types of construction cause bodies of water to spread out. More attention needs to be paid to sustainable planning initiatives and innovative building codes. A Task Force member mentioned that Iowa has drastically altered its landscape, which has resulted in narrower waterways which poses threats to communities in a case of a natural disaster.

A Task Force member mentioned that there is a lack of state level regulations requiring standards that apply to the whole state. He said that state agencies should be charged with implementing these standards. A Task Force member mentioned that Iowa does not have state-wide regulations and having such regulations will provide consistency across the state and will result in similar mitigation efforts.

The group also expressed concerns regarding environmental damages associated with the construction of levees. A Task Force member mentioned that there are a lot of other non-structural ways to deal with hazard mitigation. He said that a lot of caution needs to go in proposing physical mitigation measures.

Gaps Identification and Prioritization

McKeen asked the group to identify the gaps. The group came up with the following gaps.

The group mentioned that gaps exist between federal and state programs. There are gaps in programs offered and requirements to apply for programs. Another Task Force member expressed her frustration with lack of data, especially environment and safety data. The Task Force member from Oakville mentioned that she feels that people of Oakville will be swept under the rug because they were in the flood zone. She said that they are looking for answers but are not able to get them.

The group said they see gaps in hazard mitigation funds, as these funds will not go outside the disaster areas to communities that have similar dilemmas. One Task Force member was concerned about communities that were not directly impacted by floods but are facing the spill-over effects of floods.

The group raised credibility issues of the available maps. The group said that the maps are outdated and there is a need to redo them. They said that 100-year maps are outdated and do not accurately reflect the landscape of the present. The group emphasized the need for funding for LiDAR technology.

The group said that there is a lack of an emergency management coordinated plan that is approved by the state. The Task Force members discussed that the state needs to develop an Emergency Management Coordinated Plan and update that constantly so that it can be applied to events such as this. The group agreed that the environment has changed and emergency plans should reflect the current situation. Another Task Force member mentioned that the state should have programs that put control on altering the environment and landscape.

It was also noted that there are gaps in providing financial assistance to the people. A Task Force member mentioned that one cannot plan completely against a catastrophic event; therefore, focus should be given to assisting people. She said that there are gaps in the public assistance program that need to be filled.

The group agreed that there are major gaps in availability of affordable homes. A Task Force member mentioned that people who are in the flood plain areas cannot be bought-out because these people are already living in low-income areas and will not be able to afford newer homes in a non-flood plain location. He emphasized that there is a need to have low cost, affordable homes. For this, there is a need to have grants and funds and money available. One Task Force member mentioned that housing should be an important issue. From a state perspective, the state has very limited resources, but people need to have houses before cold winter.

The group emphasized the need to rebuild neighborhoods. A Task Force member mentioned that people have already invested and are already in debt. The worst thing they can do is get into more debt. He said that people are afraid of debt, especially elderly people. He also emphasized the need to have funding available for businesses with zero or lower interest rates.

One Task Force member commented that people and agencies have their niche, but there is no agency or committee that works for the people who are outside the flood plain, but this is one of the important needs. He said that people are pointing out at different directions to seek assistance but there is a need for one agency or organization that has the expertise on all issues and program. He said that something like this should be there every time there is an emergency or catastrophe.

A Task Force member emphasized the need to have flexibility in services and programs. He said that one cannot plan for everything, and, therefore, programs should be designed in a way that they are adaptable to different situations.

McKeen suggested that attention will be given to places and people affected in places where there are no programs already. She asked if that is a reasonable thing to do. She also asked if it is reasonable that there be a state level recommendation that there be efforts to negotiate with the federal government about flexibility in program rules. One Task Force member mentioned that the local governments need a little push to start making those steps to help identify where the needs are. Local governments need to know how to work with the federal government.

A Task Force member emphasized that the legislators have a responsibility to their citizens, and some decisions may not get them re-elected, but they should do the right thing and right thing now is to make sure that people are taken care of. He said that legislators should cut through red tape and bureaucracy and make the right decisions.

It was also discussed that all decisions are dependent on each other, which raises the question of who goes first. If one agency takes the first step, it needs the support of other entities. For example, if Cedar Rapids says they want a buyout, they will need support of the federal government. One Task Force member mentioned that the problem with simultaneous decisions is that there are so many variables. There has to be a push from somewhere. He said that there is a lack of a process on who needs to go first. If the local government goes first, the state and federal governments need to support the local government.

The group discussed that there is a lack of decision-making as far as where houses need to be built. One Task Force member said the state should give assurance to the citizens of Cedar Rapids and other cities that they will receive help to relocate if they participate in the buyout program. Another Task Force member emphasized that there needs to be enough funds to redevelop. He said he would like to see the state legislators address that. One Task Force member asked if it is possible to redirect other state funding streams, such as lottery money, to provide to flood-related programs instead of other programs. He said that the immediate need is to take care of people who have been severely impacted by flooding.

Another Task Force member mentioned that a lot of problems need to be addressed simultaneously. He said holding water is one, building levees is another. But, he said that if the focus goes to levees, and if the levees are raised to provide higher protection, but if we let it silt, we are not reducing the risk. He said that issue of water resources should be addressed soon as well.

The group discussed that the statewide watershed management group needs to look at the long term. A Task Force member said that a long term plan is already being developed by the Watershed Quality Planning Taskforce. There is a need for the rest of the planning and implementation. Another member said that there is also a need to develop an emergency plan if the long-term plan fails or there is another catastrophic level situation like this year.

The group also discussed that Iowa lacks a comprehensive plan. They discussed that creating a plan at the district or local level does not fix things or control impacts on other places. Therefore, there needs to be a state-wide plan that looks at all communities.

A Task Force member emphasized that a hazard mitigation plan, especially for public services, is extremely important. He gave the example of Mason City where the water treatment plan was lost, which shut down food processors.

A Task Force member emphasized that there is a need to study the whole river basins before planning. He emphasized that when designing plans, it is important to look at the upper as well as lower basins. He mentioned that Iowa's floods are partly caused by the water flowing downstream from Minnesota.

The group also agreed that local law enforcement should be well trained to provide mandatory evacuations since they are the first responders in planning.

A Task Force member mentioned that attention needs to be given to small communities that are adjacent to and overshadowed by bigger communities. She mentioned that they live next to Cedar Rapids and all the attention was diverted to Cedar Rapids with little or no acknowledgement of the damage that occurred in their community.

The group also said that more communication needs to take place between agencies that work on the issue of flood plain, hazard recovery, and also the public. A Task Force member mentioned that they need to figure out a way to have local, state and federal government work together.

A Task Force member asked what goes into Army Corps CBA study. Less mentioned that benefits include flood damages, but it does not capture regional damages. The analysis also takes into account the health and safety of people but loss of life does not have any value in the analysis. The analysis is based upon the planning guidelines of Mississippi River and Tributaries (MRT). A Task Force member asked if Iowa can have more reservoirs. Less answered that Iowa topography does not allow for more flood control reservoirs.

Recommendations

McKeen asked the group to make recommendations. The group came up with the following recommendations.

The state government should give leeway to local government and start accepting their decisions on mitigation and help communities achieve them.

The group recommended that Iowa should figure out ways to meet gaps in funding and Congress should waive/relax the regulations imposed on various program.

A Task Force member recommended that at the local level, usage of terminology such as 100 or 500 years flood should be halted and replaced with percentage terms, such as one percent or .2 percent risk. But, another Task Force member mentioned that people need to understand the usage of these terms they hear and what it means but also mentioned that such terminology should not restrict important mitigation efforts.

The group recommended that people should be provided a support system that will give them an incentive to move out from the flood plains whether through buyouts or other ways. Another Task Force member felt the same way, and said that financial tools need to be created that provides incentives for people to move.

The group recommended that emphasis should be placed on small mitigation efforts. While restoring wetlands may not solve the issue of all the floods, non-structural hazard mitigation could make a significant difference. The group also agreed that studies need to be done to measure the environmental impact of the recommendations. There should also be a need to develop long-term strategies aimed at restoring the natural landscape.

The group agreed that strong emphasis should be placed on trying to make people whole again. A Resource Group member pointed out that it is impossible to make people whole again, but emphasis should be placed on moving people to a safer place and providing assistance that guarantees paying off their mortgages.

The group made other recommendations that included providing services to the local communities to do risk assessment studies and providing flood plain mapping maintenance. The group also emphasized that people should be educated to keep very good records and teach them ways to restore records right after flooding occurs.

McKeen turned the meeting back to Chairman Bywater to make his closing statement.

Chairman Bywater thanked everyone for their time. One Task Force member thanked everyone for providing the information. She thanked all the speakers. Bywater thanked Barb Lynch for arranging all the speakers.

No one had further questions. Bywater adjourned the meeting.